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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,913	11/21/2003	John M. McBean	MIT-152AUS	2397
22494	7590	07/12/2005	EXAMINER	
DALY, CROWLEY, MOFFORD & DURKEE, LLP SUITE 301A 354A TURNPIKE STREET CANTON, MA 02021-2714			BROWN, MICHAEL A	
			ART UNIT	PAPER NUMBER
			3764	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 10/718,913	Applicant(s) MCBEAN ET AL.	
	Examiner Michael Brown	Art Unit 3764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rahman '259 in view of Scanlon, along with Beard '296.

Rahman discloses in figure 3 a powered orthotic device, substantially as claimed. However, Rahman doesn't disclose the sensors inside of the strap or a first and second strap. Scanlon teaches in figure 10 a monitoring device comprising first and second straps 104 and a sensor 12 on the inside of the straps. Beard teaches in figures 1-5 a powered orthotic comprising a power source 12, a cable 3 and a muscle sensing means 43. It would have been obvious to one having ordinary skill in the art at the time that the invention was made that the sensor disclosed by Rahman could be inside of the first and second straps as taught by Scanlon in order to locate the sensor adjacent to a muscle. The device disclosed by Rahman could be operated by the power source as taught by Beard. The sensor as taught by Beard could be substituted for the sensor disclosed by Rahman in order to be able to sense muscle movement. The control as taught by Beard could be used to lock the device in place.

Claims 2-5, 7 and 9 rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims above, and further in view of Petrofsky.

Petrofsky teaches in figure 15 a computer controlled hydraulic resistance device comprising a sensing and control in a closed loop manner (col. 10, lines 10-15), a hydraulic actuator 211, a mean 200, for receiving a sensor signal 2 and for scaling the sensor signal and the closed loop circuit 207, controls the amount of force (the valve 210 controls the amount of force applied to the actuator). It would have been obvious to one having ordinary skill in the art at the time that the invention was made that the sensing and closed loop circuit as taught by Petrofsky could be incorporated into the orthotic device by Rahman in order to use the closed loop circuit to control the amount of pressure that is applied to the actuator. Thus, making it possible to control the movement of the orthotic. Petrofsky also teaches a control means 200 that includes a means 204 for making low impedance measurements of output torque. Rahman discloses attaching the orthotic to a wheelchair (col. 1, lines 35-37).

Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims above, and further in view of Scorvo. Scorvo teaches an orthotic brace comprising an actuator 300 that is pneumatic. It would have been obvious to one having ordinary skill in the art at the time that the invention was made that the actuator disclosed by Rahman could be pneumatic as taught by Scorvo because pneumatic and hydraulic actuators are interchangeable. It is old and well known that an actuator can be electric.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reinbodl discloses an apparatus for isometric exercise.

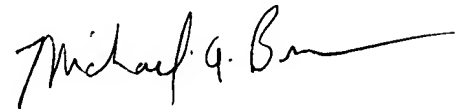
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Brown whose telephone number is 571-272-4972. The examiner can normally be reached on 5:30 am-4:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gergory Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Brown  
July 8, 2005

A handwritten signature in black ink, appearing to read "Michael A. Brown", with a long horizontal flourish extending to the right.

MICHAEL A. BROWN  
PRIMARY EXAMINER